## ABSTRACT

A microscope system comprises: a control means (18) capable of generating electric control signals (18a); a having an illuminated (7) means modulator spatial surface (7a) to be illuminated by light emitted by a light source (1), and capable of receiving the electric control signal and of spatially modulating reflection characteristic or transmission characteristic of the illuminated surface by a spatial frequency specified by the electric control signal; an illuminating optical 10 means (8, 11) for illuminating a specimen (12) with light spatially modulated by the spatial modulator means; an image detecting means (15) for detecting a signal image formed by signal light emitted by the specimen illuminated by the illuminating optical means; 15 and an arithmetic means (16) for processing signal images formed by using the spatial frequency of at least three different phases set by the control means and detected by the image detecting means to obtain an optical sectioned image. 20